

CLAIMS:

1. A display device comprising:
 - a source of an original image;
 - 5 a display;
 - a user input system adapted to generate a non-directional signal in response to a user input action; and
 - a controller adapted determine a set of portions of the original image each portion including less than all of the original image and with the set
 - 10 having at least one portion that is non-central with respect to the original image and to successively designate a different one of a set of portions of the original image in response to each non-directional signal and adapted to cause the display to present a portion evaluation image showing the currently designated portion of the original image and to determine an area of importance in the original image
 - 15 based upon the currently designated portion;
 - wherein each portion evaluation image shows the currently designated portion having a magnification, that is greater than the magnification that the currently designated portion has when the currently designated portion is presented as a part of the original image.
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2. The display device of claim 1, wherein the controller is further adapted to generate area of importance data based upon determined area of importance and to associate the area of importance data with the original image.
- 25 3. The display device of claim 2, wherein the controller associates the area of importance data with the original image by storing the area of importance data as metadata in a digital image that comprises the original image.
- 30 4. The display device of claim 2, wherein the controller associates the area of importance data with the original image by storing the area of importance data as metadata on a photosensitive film bearing the original image.

5. The display device of claim 1, wherein the controller is further adapted to generate a revised image based upon image information from the area of importance and to store the revised image.

5 6. The display device of claim 5, wherein the controller is further adapted to resample the revised image so that the revised image has image characteristics that correspond to the image characteristics of the original image.

7. The display device of claim 1, wherein the non-directional
10 signal comprises a start signal and an end signal generated in response to a user input action; and wherein the controller is adapted the start signal and, in response thereto, sequentially designate a different one of the set of portions of the original image and to cause the display to present an evaluation image showing each currently designated portion for a period of time, said sequence of designations
15 ending when the end signal is generated, wherein the controller is further adapted to determine an area of importance in the original image based upon the portion that is designated when the end signal is generated.

8. The display device of claim 1, wherein the non-directional
20 signal comprises a start signal and an end signal, with the start signal being generated in response to a first user input action and an end signal being generated in response to a second user input action; and wherein the controller is adapted to detect at least one start signal and, in response thereto, provisionally designate a different one of the set of portions of the original image and to cause the display to
25 present an evaluation image that shows each provisionally designated portion, wherein the controller is further adapted to detect the end signal and in response thereto, to determine an area of importance based upon the portion that is provisionally designated when the end signal is detected.

9. The display device of claim 1, the user input system is to
30 generate a first non-directional signal in response to the user input action and the controller is further adapted to designate a first portion of the image in response

thereto, wherein the controller is further adapted to receive subsequent non-directional signals and to provisionally designate a different portion of the original image in response to each subsequent non-directional signal, and wherein the controller determines that a portion is to be designated when an input signal is
5 continual for a period of time longer than a predefined time period.

10. The display device of claim 1, wherein the user input system generates a save input in response to a save user input action and, in response thereto, the controller uses the currently designated portion to determine an area of
10 importance.

11. The display device of claim 1, wherein the user input system generates a reset signal in response to a reset user input action and the controller does not designate an area of importance for an image when a reset action is
15 detected.

12. The display device of claim 1, wherein the set of predetermined portions of the original image include less than 10 portions.

20 13. The display device of claim 1, wherein the user input system is adapted to receive a magnification input and to generate a magnification signal in response thereto and wherein the controller is adapted to use more than one set of portions of image information from the original image with each set having at least one portion therein that is sized differently from at least one portion in
25 another set of the more than one set of portions, and with the controller selecting one of the more than one set based upon the magnification input.

14. A display device comprising:
a source of an original image;
30 a display;
a user input system adapted to generate an advance signal and a save signal; and

a controller adapted to detect the advance signal and, in response thereto, to cause the display to present a sequence of portion evaluation images each representing the image content of one of a set of different portions of the original image with the predetermined set of portions including at least one
5 portion that is non-central with respect to the original image;

wherein the controller determines an area of importance in the original image based upon the portion of the original image presented when the controller detects the save signal.

10 15. The display device of claim 14, wherein the source of an original image comprises an image capture system.

16. The display device of claim 15, wherein the controller is adapted to cause the display to present an evaluation image that has an appearance
15 that corresponds to the appearance of the original image and to receive signals from the user input system during presentation of the evaluation image.

17. The display device of claim 16, wherein the controller forms each image in the sequence of images that sequentially designate a set of portions
20 of the original image by forming indicia in the designated portions of the evaluation image that indicate the portion that is currently being designated.

18. The display device of claim 15, wherein the controller forms each portion evaluation image so that it incorporates only image information from
25 the currently selected portion.

19. The display device of claim 15, wherein the end signal comprises the absence of the start signal.

30 20. The display device of claim 15, wherein the user input system is adapted to generate the start signal in response to one user input action and the end signal in response to a different user input action.

21. A display device comprising:
a source of an original image;
a display;
5 a user input system adapted to generate a non-directional advance
signal in response to a user input action; and
a controller adapted to define a number of portion evaluation
images each comprising image information from a portion of the original image
with each portion being located relative to a predefined anchor point within the
10 original image, with the controller further being adapted to cause a different
portion evaluation image to be presented on the display in response to each
advance signal and with the controller additionally being adapted to determine
from the non-directional advance signal, a user designation of a portion of the
original image and to use the designation to determine an area of the importance
15 in the original image;
wherein at least one anchor point is located so that at least one
portion is non-central with respect to the original image.

22. The display device of claim 21, wherein the user input system
20 is adapted to receive a shape designation input and generate a shape signal and
wherein the controller determines the shape of the portion within the original
image based upon the shape signal.

23. The display device of claim 22, wherein the controller is
25 further adapted to generate area of importance data based upon the designated
portion and to associate the area of importance data with the original image.

24. The display device of claim 23, wherein the controller
associates the area of importance data with the original image by storing the area
30 of importance data as metadata in a digital image that comprises the original
image.

25. The display device of claim 23, wherein the controller associates the area of importance data with the original image by storing the area of importance data as metadata on a photosensitive film bearing the original image.

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26. The display device of claim 22, wherein the controller is further adapted to generate a revised image based upon image information from area of importance.

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27. The display device of claim 26, wherein the controller is further adapted to resample the revised image so that the revised image has image characteristics that correspond to the image characteristics of the original image.

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28. The display device of claim 22, wherein the user input system receives a magnification input and generates a magnification signal in response thereto and wherein the controller determines the size of a portion within the original image based upon the magnification signal.

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29. The display device of claim 22, wherein each portion is defined within the original image as comprising image information that is contained within a predetermined template located within the original image at a position located by one of said anchor points.

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30. The display device of claim 29, wherein each portion is defined within the original image as comprising image information that is contained within one of a set of differently sized templates located within the original image at a position defined by one of said anchor points, wherein one of the differently sized templates is selected by the controller based upon a magnification signal received from the user input system.

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31. The display device of claim 21, further comprising the step of forming a revised image containing image information from the area of importance.

5 32. The display device of claim 31 further comprising the step of storing the revised image in place of the original image.

32. The display device of claim 30, further comprising a zoom input generating a zoom signal wherein the relative proportion of the portion of
10 the original image used to form an evaluation image is determined based upon the zoom signal.

33. A method for operating a display device comprising the steps of:
15 obtaining an original image;
 presenting an evaluation image having an appearance that corresponds to the original image;
 defining a set of different portions in the original image, with each portion comprising less than all of the original image and at least one of the
20 portions being non-central with the original image;
 detecting a non-directional user input action during presentation of the evaluation image;
 designating one of the set of portions in response to each detected non-directional user input action
25 presenting a portion evaluation image that corresponds to the designated portion with the portion evaluation image showing the currently designated portion having a magnification that is greater than the magnification that the designated portion has when the currently designated portion is presented as a part of the original image; and
30 determining an area of importance based upon the designated portion.

34. The method of claim 33, further comprising the step of detecting a reset action during presentation of the portion evaluation image and in response thereto, designating a different one of the portions and presenting a portion evaluation image that corresponds to the different one of the portions.

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35. The method of claim 33, wherein the step of defining a set of different portions in the original image comprises defining said portions based upon a predetermined pattern

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36. The method of claim 33, wherein the step of defining a set of different portions in the original image comprises the steps of analyzing the image content of the original image and defining portions based upon the image analysis.

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37. The method of claim 36, wherein the step of analyzing the image content of the original image comprises determining which portions of the original image are in focus, and defining the portions of the set of portions based upon the focus analysis.

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38. The method of claim 33, wherein the step of defining a set of different portions in the original image comprises the steps of receiving a user input action that designates an anchor point in the original image from a predefined set of anchor points and receiving a user input action that designates a portion shape to be located within the original image relative to the anchor point, wherein the designated portion comprises the portion of the original image contained within the portion shape as located relative to the anchor point.

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39. The method of claim 33, wherein the step of defining a set of different portions in the original image comprises the steps of analyzing information used in a capture step in which the original images captured to define the set of portions.

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40. The method of claim 33, wherein the step of defining a set of different portions in the original image comprises analyzing the original image to identify potential subjects in the original image and defining portions that correspond to the identified potential subjects.

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41. The method of claim 33, wherein the step of defining a set of different portions in the original image comprises analyzing the original image to identify illumination patterns within the original image and defining a portion based upon one or more detected patterns.

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42. The method of claim 33, wherein the step of defining a set of different portions of the original image comprises analyzing the original image to determine potential subject areas and defining a portion for each determined potential subject area.

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43. A method for operating a display device, the method comprising the steps of:

obtaining an original image;

displaying an evaluation image of the original image;

20 detecting an advance user input action that does not include a directional input relative to the displayed evaluation image;

selecting a sequence of different portions from a set of different portions of the original image in response to the advance user input action;

25 presenting, for each selected portion, a portion evaluation image that indicates the image information in the original image that is contained within the currently designated portion; and

detecting a save user input action and determining an area of importance based upon the selected portion displayed when the save input user action is detected,

30 wherein at least one of the predetermined set of portions of the original image is non-central with respect to the original image.

44. The method of claim 42, wherein the step of selecting at least one portion comprises receiving at least one advance signal and designating a different one of the set of portions in response to each advance signal.

5 45. The method of claim 43, wherein the steps of selecting at least one portion of a set of different portions of the original image based upon the user input action; and presenting, for each selected portion, a portion evaluation image that indicates the image information in the original image that is contained within the currently designated portion comprise presenting a sequence of portion
10 evaluation images including each of the portions in the set of different portions and detecting a save user input action during presentation of one of the portion evaluation images.